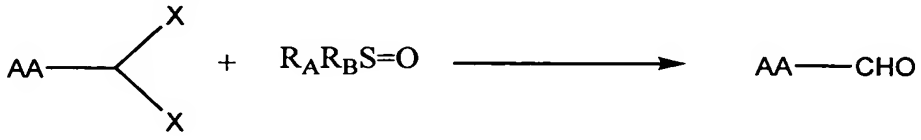
What is Claimed Is:

1. A method comprising reacting a dihalomethyl compound with a sulfoxide in the absence of an effective amount of an activating reagent to form the corresponding aldehyde, according to the reaction:



wherein

AA represents an aryl group, or an alkenyl or alkynyl group;

X represents F, Cl, Br, or I; and

R_A and R_B are each an alkyl or aryl group independently selected from the group consisting of C_1-C_6 alkyl optionally substituted by a C_4-C_8 cycloalkyl or phenyl group, C_4-C_8 cycloalkyl optionally substituted by up to two C_1-C_3 alkyl groups, and phenyl optionally substituted by up to five C_1-C_3 alkyl groups.

2. A method according to claim 1 wherein AA is selected from the group consisting of phenyl, naphthyl, indolyl, biphenyl, pyridinyl, pyrrolyl, quinolinyl, isoquinolinyl, pyrimidinyl, furyl, oxazolyl, thioazolyl, and isoxazolyl, and straight, branched, cyclic and bicyclic alkenyl and alkynyl groups having from 2 to 12 carbon atoms, each of which may be substituted or unsubstituted.

3. A method according to claim 2 wherein R_A and R_B are each independently selected from the group consisting of phenyl, methyl, ethyl and tetramethylene.

4. A method according to claim 2 wherein AA is selected from the group consisting of phenyl, biphenyl and indolyl, each of which may be substituted or unsubstituted.

5. A method according to claim 1 wherein AA is phenyl or biphenyl optionally substituted by one to three substituents independently selected from the

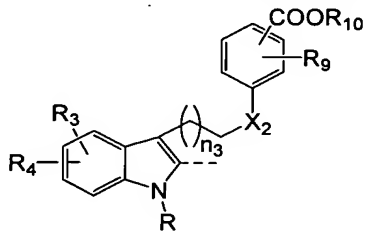
group consisting of halogen, cyano, nitro, hydroxy, R_C alkyl, -C(O)OR_C alkyl, -NR_CR_D, -C(O)NR_CR_D amide, $S(O)_2R_CR_D$, $NR_1C(O)NR_CR_D$, or -OC(O)NR_CR_D group, where R_C and R_D are each C_1-C_4 alkyl.

6. A method according to claim 5 wherein AA is phenyl optionally substituted by one substituent selected from the group consisting of halogen, cyano, nitro, hydroxy, R_C alkyl, -C(O)OR_C alkyl, -NR_CR_D, -C(O)NR_CR_D amide, $S(O)_2R_CR_D$, $NR_1C(O)NR_CR_D$, or -OC(O)NR_CR_D group, where R_C and R_D are each C_1-C_4 alkyl.

7. A method according to claim 6 wherein said reaction occurs at a temperature in the approximate range of 20 -120°C.

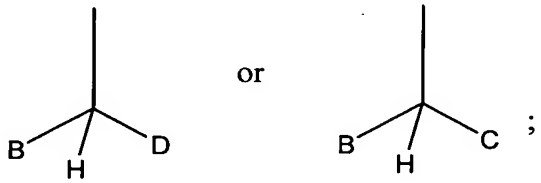
8. A method according to claim 1 wherein AA is an optionally substituted 2-indolyl group.

9. A method according to claim 8 wherein AA is



wherein:

R is selected from the formulae -$(CH_2)_n$-A, -$(CH_2)_n$-S-A, or -$(CH_2)_n$-O-A, wherein A is selected from the moieties:



;

wherein

D is C_1-C_6 lower alkyl, C_1-C_6 lower alkoxy, C_3-C_6 cycloaklyl -CF_3 or -$(CH_2)_{1-3}$-CF_3;

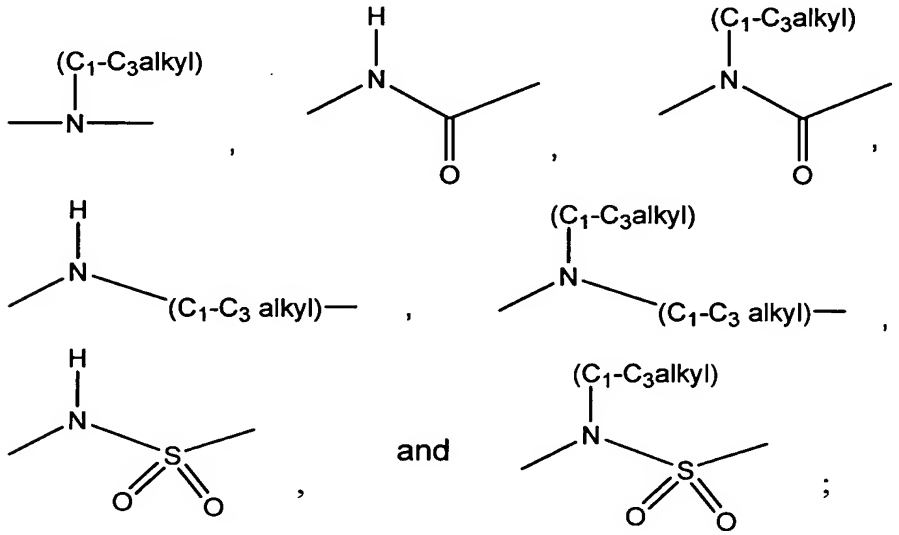
B and C are independently selected from phenyl, pyridinyl, pyrimidinyl, furanyl, thiophenyl or pyrrolyl groups, each optionally substituted by from 1 to 3,

preferably 1 to 2, substituents selected independently from H, halogen, -CN, -CHO, -CF_3, -OCF_3, -OH, C_1-C_6 alkyl, C_1-C_6 alkoxy, -NH_2, -$N(C_1$-$C_6)_2$, -$NH(C_1$-$C_6)$, -N-C(O)-$(C_1$-$C_6)$, -NO_2, and a 5- or 6-membered heterocyclic or heteroaromatic ring containing 1 or 2 heteroatoms selected from O, N or S;

n is an integer from 0 to 3;

n_3 is an integer from 0 to 3;

X_2 is selected from the group consisting of -O-, -CH_2-, -S-, -SO-, -SO_2-, -NH-, –C(O)-,



R_3 is selected from the group consisting of H, halogen, -CN, -CHO, -CF_3, -OCF_3,

-OH, -C_1-C_6 alkyl, C_1-C_6 alkoxy, C_1-C_6 thioalkyl, -NH_2, -$N(C_1$-$C_6)_2$, -$NH(C_1$-$C_6)$, -N-C(O)-$(C_1$-$C_6)$, and -NO_2;

R_4 is selected from H, halogen, -CN, -CHO, -CF_3, -OCF_3, -OH, -C_1-C_6 alkyl, C_1-C_6 alkoxy, C_1-C_6 thioalkyl, -NH_2, -$N(C_1$-$C_6)_2$, -$NH(C_1$-$C_6)$, -N-C(O)-$(C_1$-$C_6)$, -NO_2, -N-C(O)-$N(C_1$-C_3 alkyl$)_2$, -N-C(O)-NH(C_1-C_3 alkyl), -N-C(O)-O-(C_1-C_3 alkyl), -SO_2-C_1-C_6 alkyl, -S-C_3-C_6 cycloalkyl, -S-CH_2-C_3-C_6 cycloalkyl, -SO_2-C_3-C_6 cycloalkyl, , -SO_2-CH_2-C_3-C_6 cycloalkyl, C_3-C_6 cycloalkyl, -CH_2-C_3-C_6 cycloalkyl, -O-C_3-C_6 cycloalkyl, , -O-CH_2-C_3-C_6 cycloalkyl, phenyl, benzyl, benzyloxy, morpholino or other heterocycles such as pyrrolidino, piperidine, piperizine furan, thiophene, imidazole, tetrazole, pyrazine, pyrazolone, pyrazole, imidazole, oxazole and isoxazole, the rings of each of these R_4 groups each being optionally substituted by from 1 to 3 substituents selected from the group of H, halogen, -CN, -CHO, -CF_3, -OH, -C_1-C_6 alkyl, C_1-C_6

alkoxy, $-NH_2$, $-N(C_1-C_6)_2$, $-NH(C_1-C_6)$, $-N-C(O)-(C_1-C_6)$, $-NO_2$, $-SO_2(C_1-C_3$ alkyl), $-SO_2NH(C_1-C_3$ alkyl), $-SO_2N(C_1-C_3$ alkyl)$_2$, and OCF_3;

R_9 is selected from the group consisting of H, halogen, -CN, -CHO, $-CF_3$, -OH, $-C_1-C_6$ alkyl, C_1-C_6 alkoxy, $-NH_2$, $-N(C_1-C_6)_2$, $-NH(C_1-C_6)$, $-N-C(O)-(C_1-C_6)$, and $-NO_2$; and,

R_{10} is a C_1-C_6 alkyl group.

10. A method according to claim 9 wherein R_A and R_B are each independently selected from the group consisting of phenyl, methyl, ethyl and tetramethylene.

11. A method according to claim 10 wherein R_A and R_B are each methyl.

12. A method according to claim 11 wherein said reaction occurs at a temperature in the approximate range of 15-35°C.

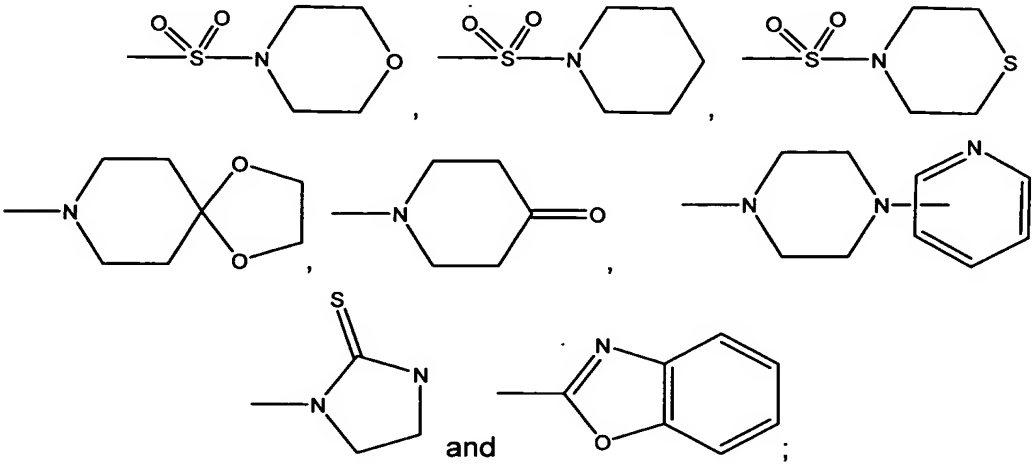
13. A method according to claim 11 further comprising:

a) reacting said aldehyde with nitromethane and a catalytic amount of ammonium acetate, followed by reduction with a Zn(Hg) amalgam to convert the -CHO group to an ethylamine group;

b) reacting the ethylamine compound with $ClSO_2(CH_2)_{n2}X_1R_1$, wherein

R_1 is a moiety selected from C_1-C_6 alkyl, C_1-C_6 fluorinated alkyl, C_3-C_6 cycloalkyl, tetrahydropyranyl, camphoryl, adamantyl, CN, $-N(C_1-C_6$ alkyl)$_2$, phenyl, pyridinyl, pyrimidinyl, furyl, thienyl, napthyl, morpholinyl, triazolyl, pyrazolyl, piperidinyl, pyrrolidinyl, imidazolyl, piperizinyl, thiazolidinyl, thiomorpholinyl, tetrazole, indole, benzoxazole, benzofuran, imidazolidine-2-thione, 7,7,dimethyl-bicyclo[2.2.1]heptan-2-one, Benzo[1,2,5]oxadiazole, 2-Oxa-5-aza-bicyclo[2.2.1]heptane, Piperazin-2-one or pyrrolyl groups, each optionally substituted by from 1 to 3, preferably 1 to 2, substituents independently selected from H, halogen, -CN, -CHO, $-CF_3$, OCF_3, -OH, $-C_1-C_6$ alkyl, C_1-C_6 alkoxy, $-NH_2$, $-N(C_1-C_6)_2$, $-NH(C_1-C_6)$, $-N-C(O)-(C_1-C_6)$, $-NO_2$, $-SO_2(C_1-C_3$ alkyl), $-SO_2NH_2$, $-SO_2NH(C_1-C_3$ alkyl), $-SO_2N(C_1-C_3$ alkyl)$_2$, -COOH, $-CH_2-COOH$, $-CH_2-N(C_1-C_6$ alkyl), $-CH_2-N(C_1-C_6$ alkyl)$_2$, $-CH_2-NH_2$, pyridine, 2-Methyl-thiazole, morpholino, 1-Chloro-2-methyl-propyl, $-C_1-$

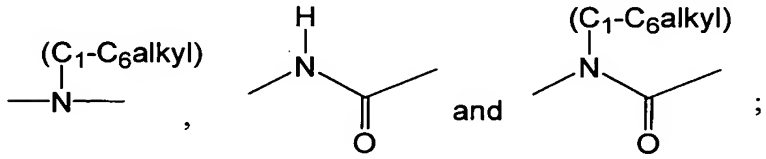
C_6thioalkyl, phenyl (further optionally substituted with halogens), benzyloxy, (C_1-C_3 alkyl)C(O)CH_3, (C_1-C_3 alkyl)OCH_3, C(O)NH_2, and



and ;

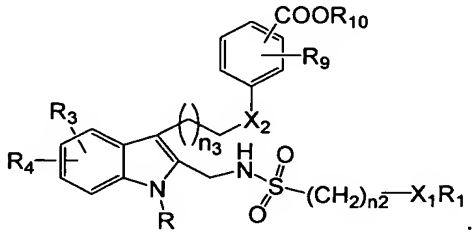
X_1 is selected from a chemical bond, -S-, -O-, -S(O)-, -S(O)$_2$-, -NH-, -NHC(O)-,

-C=C-,

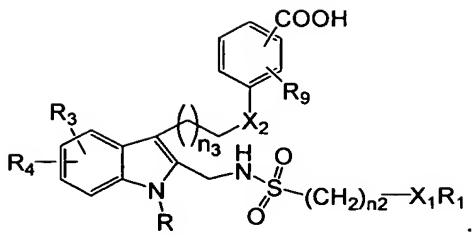


and, n_2 is an integer from 0 to 4,

to form a final compound of formula



14. The method of claim 13 further comprising hydrolyzing the ester group of the final compound to form a compound of the formula


COOH
R9
R3
X2
n3
R4
H
N
O
S
O
(CH2)n2
X1R1
N
R